

Fig. 1: During a speech auditors perceive interesting topics

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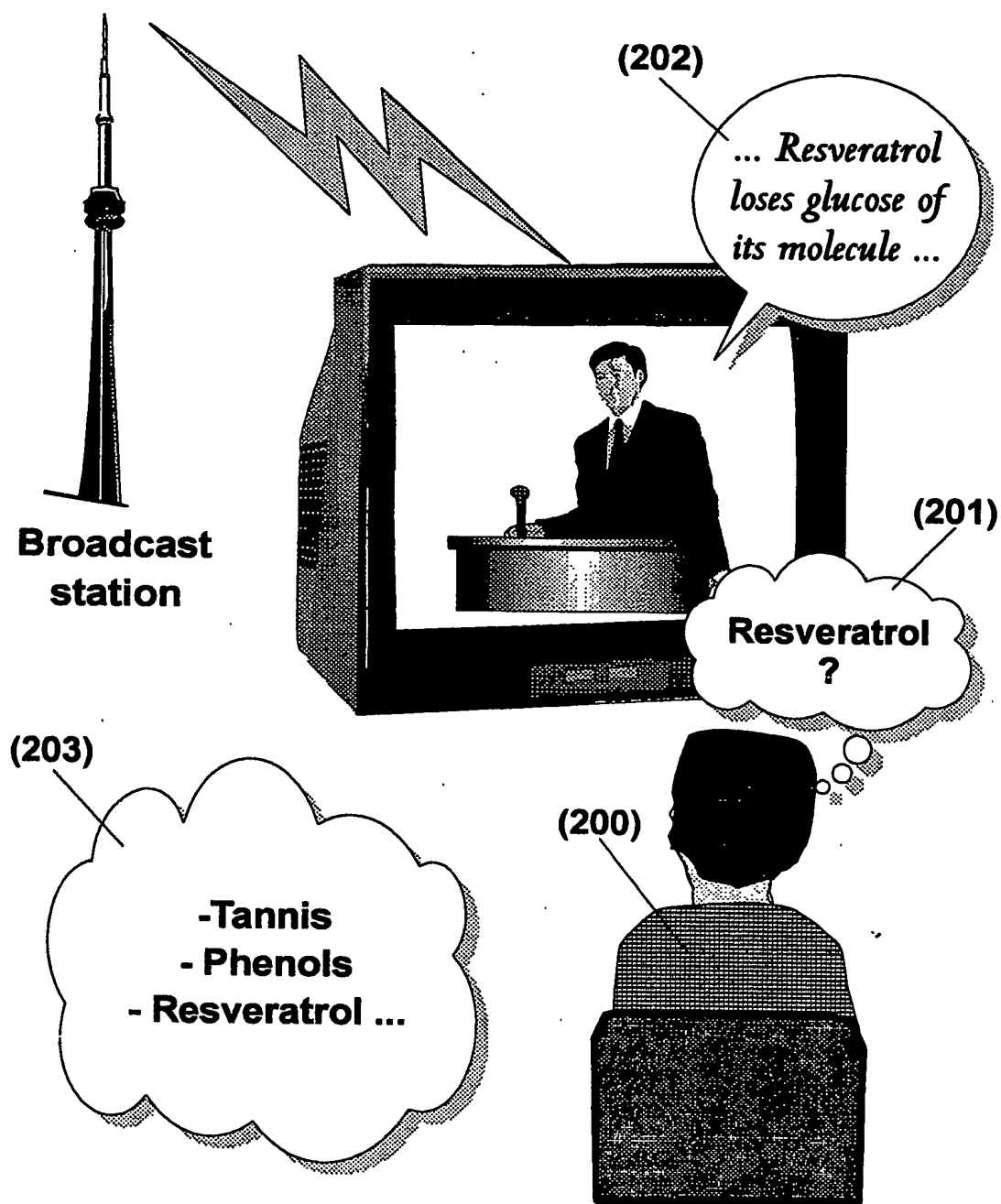


Fig. 2: During a radio or television program an auditor perceives interesting topics

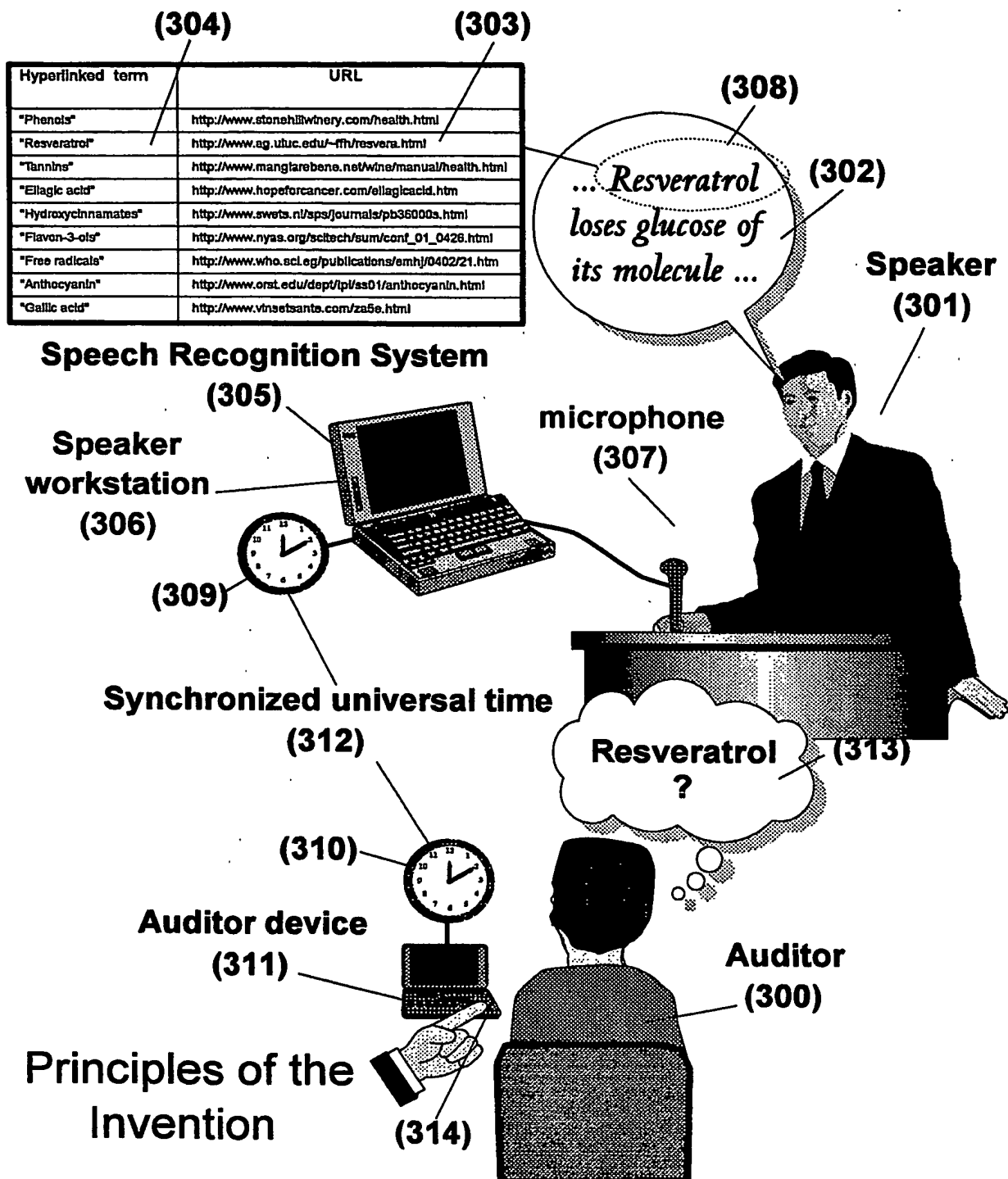


Fig. 3: The speaker workstation and auditors devices are synchronized. Hyperlinked terms pronounced by the speaker are automatically recognized during the speech

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The concentration and molecular structure of the phenols changes as grapes are processed into wine, and as new wine ages into old wine. Oxidation (the addition of an oxygen atom to a molecule) takes place, and the resulting molecules further interact with each other. Resveratrol loses glucose of its molecule. The oak barrel tannins break down and release ellagic acid. After a few months, the hydroxycinnamates begin to break down. The "flavon-3-ols from bonds with other molecules and change into a form that is not found in the fresh grape.

The good news about all these chemical changes is that as wine ages, the number of anti-oxidizing molecules in it actually increases. Anti-oxidants purge the body of free radicals and are good for us.

The bad news is that, despite the increase in the number of anti-oxidizing molecules over time, their bioavailability decreases. The anti-oxidizing molecules that are formed during aging are much larger than the original phenols, and thus are not well absorbed in the alimentary canal. After one or two years of aging, the amount of anthocyanin has decreased to about one-sixth of the original level. After five to ten years, wine has lost most of the smaller, and presumably health friendly, phenols. "When we look at very old wine, the only component that stands out is gallic acid".

So, ironically, a \$7 bottle of 3-year old wine is a healthier drink than a \$600 bottle of 25-year old wine. (Of course, it may not taste as good!).

...

Aged Wine Loses Its Vitality. by: Andrew L. Waterhouse, Ph.D. Dep. of Viticulture and Enology at the University of California at Davis Conference on Alcohol and Wine in Health and Disease, New York Academy of Sciences, April 26-29, 2001

http://www.nyas.org/scitech/sum/conf_01_0426.html#13

Fig. 4: The speaker prepares the speech text

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http://www.nyas.org/scitech/sum/conf_01_0426.html#13

Fig. 5: The speaker selects hyperlinked terms in the text

Speech Hyperlink Table

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Hyperlinked term	URL
"Phenols"	http://www.stonehillwinery.com/health.html
"Resveratrol"	http://www.ag.uiuc.edu/~ffh/resvera.html
"Tannins"	http://www.mangiarebene.net/wine/manual/health.html
"Ellagic acid"	http://www.hopeforcancer.com/ellagicacid.htm
"Hydroxycinnamates"	http://www.swets.nl/sps/journals/pb36000s.html
"Flavon-3-ols"	http://www.nyas.org/scitech/sum/conf_01_0426.html
"Free radicals"	http://www.who.sci.eg/publications/emhj/0402/21.htm
"Anthocyanin"	http://www.orst.edu/dept/lpi/ss01/anthocyanin.html
"Gallic acid"	http://www.vinsetsante.com/za5e.html

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Fig. 6: The speaker creates a Speech Hyperlink Table and associates an address with each hyperlinked term

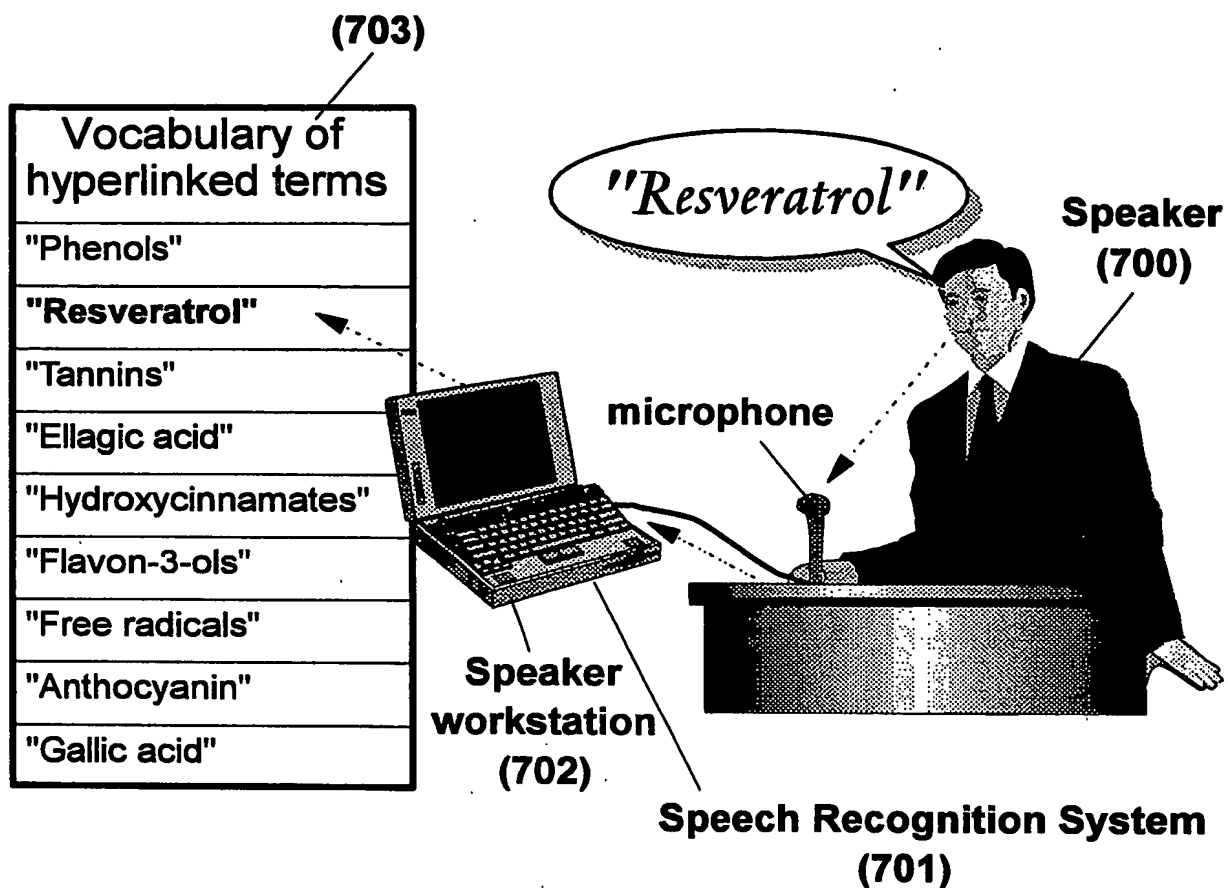


Fig. 7: The speaker trains the Speech Recognition System to recognize hyperlinked terms

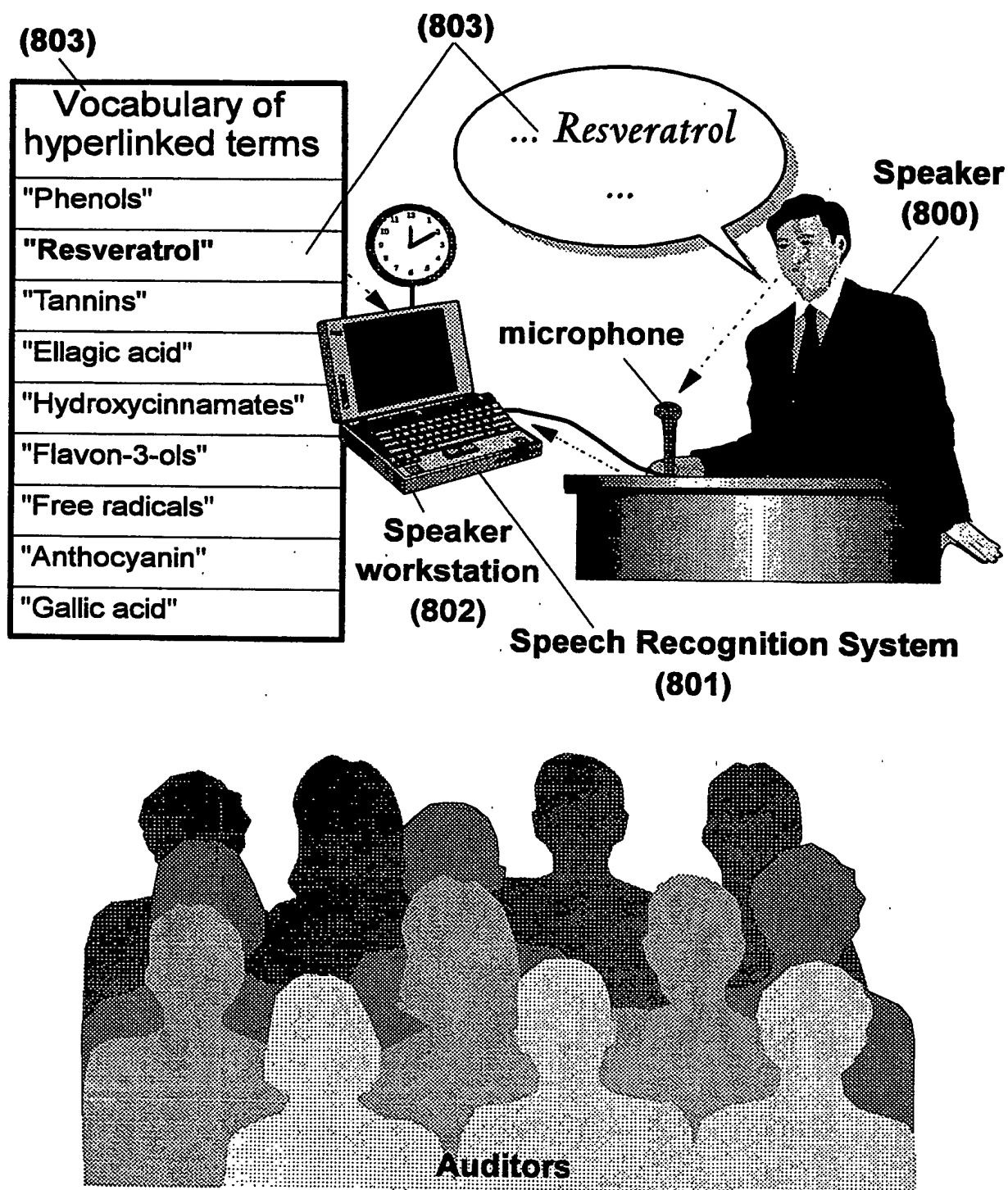


Fig. 8: During the speech, the Speech Recognition System recognizes hyperlinked terms pronounced by the speaker

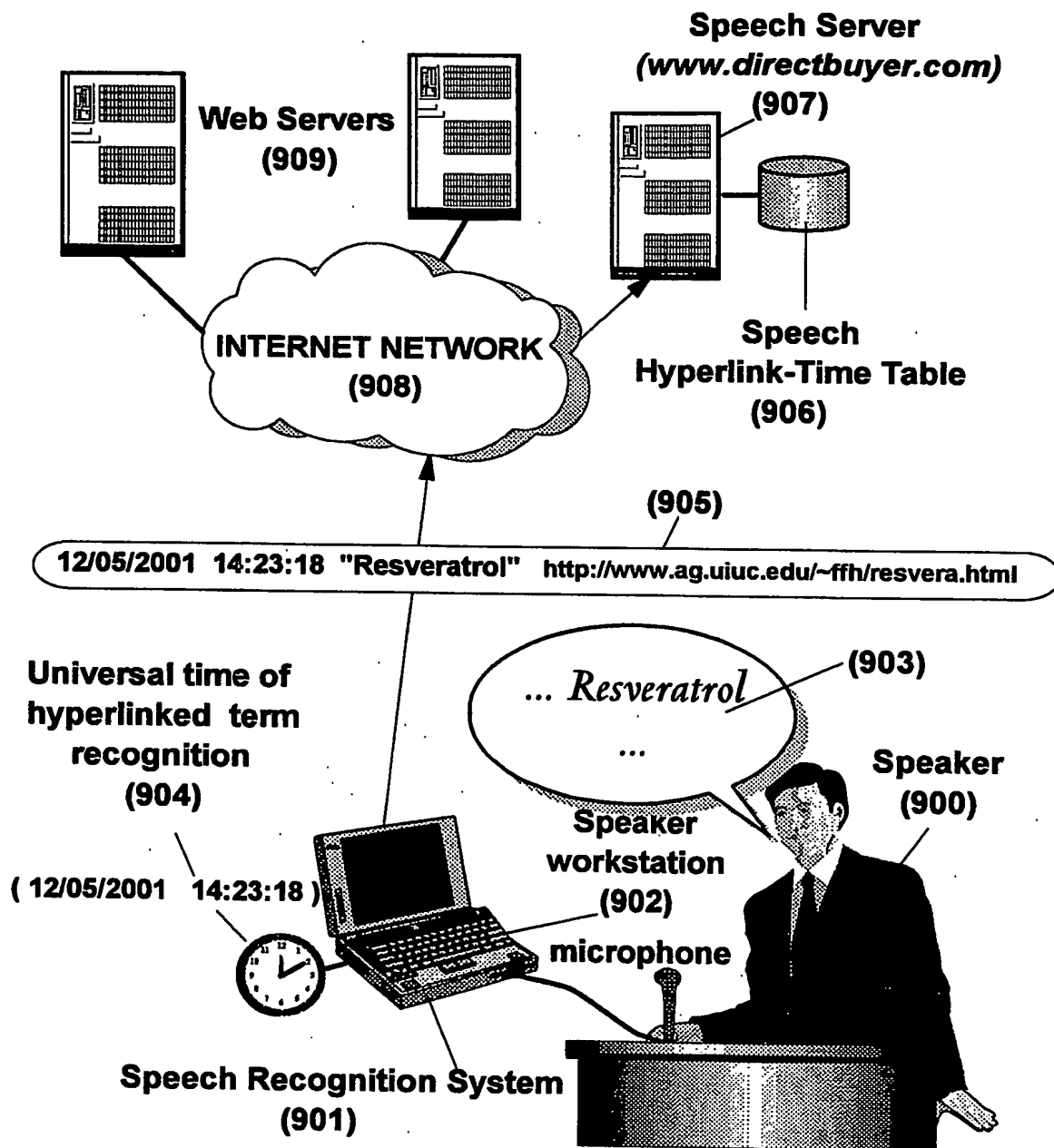


Fig. 9: Hyperlinked terms and associated addresses and universal times are recorded on a Speech Hyperlink-Time Table on a Speech Server

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Speech Hyperlink-Time Table

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SPEECH TITLE: Wine & Health	SPEAKER: Louis Durand	SPEECH HYPERLINK-TIMETABLE URL: http://www.directbuyer.com/conference-0173.htm/
RECOGNITION TIME	HYPERLINKED TERM	HYPERLINK URL
12/05/2001 14:22:52	Phenols	http://www.stonehillwinery.com/health.html
12/05/2001 14:23:12	Resveratrol	http://www.ag.uiuc.edu/~ffh/resvera.html
12/05/2001 14:23:25	Tannins	http://www.mangiarebene.net/wine/mahtml/health.htm
12/05/2001 14:23:39	Ellagic acid	http://www.hopeforcancer.com/ellagicacid.htm
12/05/2001 14:23:57	Hydroxycinnamates	http://www.swets.nl/sps/journals/pb36000s.html
12/05/2001 14:24:11	Flavon-3-ols	http://www.nyas.org/scitech/sum/conf_01_0426.html
12/05/2001 14:24:35	Free radicals	http://www.who.sci.eg/publications/emhj/0402/21.htm
12/05/2001 14:24:49	Anthocyanin	http://www.orst.edu/dept/lpi/ss01/anthocyanin.html
12/05/2001 14:25:08	Gallic acid	http://www.vinsetsante.com/za5e.html

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Fig. 10: Example of Speech Hyperlink-Time Table stored on the Speech Server

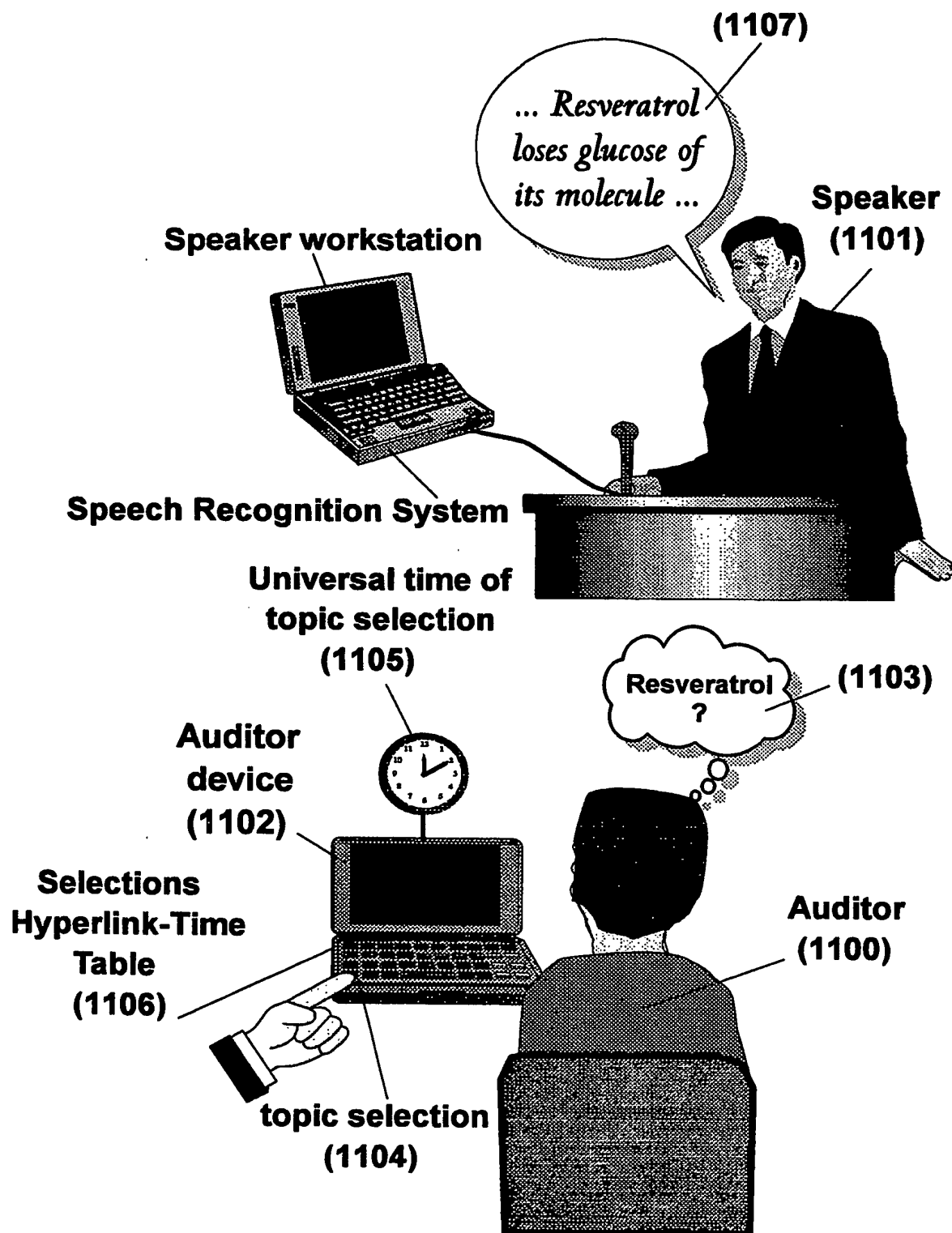


Fig. 11: During the speech, the auditor selects interesting hyperlinked terms by pressing a reserved key on the auditor device

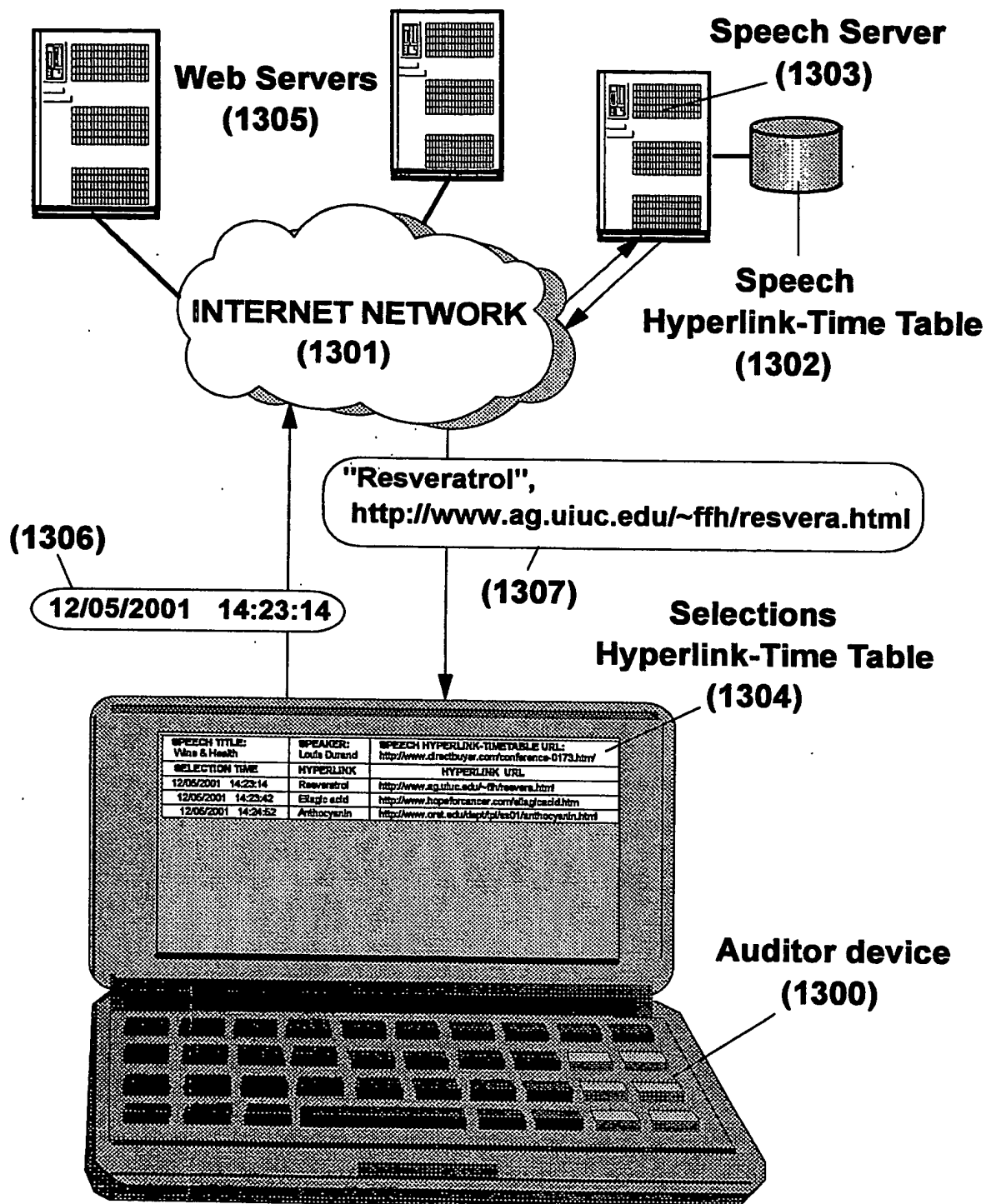


Fig. 13: The auditor updates the Selections Hyperlink-Time Table from the Speech Hyperlink-Time Table stored on the Speech Server

SPEECH TITLE: Wine & Health	SPEAKER: Louis Durand	SPEECH HYPERLINK-TIMETABLE URL: http://www.directbuyer.com/conference-0173.htm/
SELECTION TIME	HYPERLINK	HYPERLINK URL
12/05/2001 14:23:14		
12/05/2001 14:23:42		
12/05/2001 14:24:52		

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SPEECH TITLE: Wine & Health	SPEAKER: Louis Durand	SPEECH HYPERLINK-TIMETABLE URL: http://www.directbuyer.com/conference-0173.htm/
RECOGNITION TIME	HYPERLINKED TERM	HYPERLINK URL
12/05/2001 14:22:52	Phenols	http://www.stonehillwinery.com/health.html
12/05/2001 14:23:12	Resveratrol	http://www.ag.uiuc.edu/~ffh/resvera.html
12/05/2001 14:23:25	Tannins	http://www.mangiarebene.net/wine/manual/health.html
12/05/2001 14:23:39	Ellagic acid	http://www.hopeforcancer.com/ellagicacid.htm
12/05/2001 14:23:57	Hydroxycinnamates	http://www.swets.nl/sps/journals/pb36000s.html
12/05/2001 14:24:11	Flavon-3-ols	http://www.nyas.org/scitech/sum/conf_01_0426.html
12/05/2001 14:24:35	Free radicals	http://www.who.sci.eg/publications/emhj/0402/21.htm
12/05/2001 14:24:49	Anthocyanin	http://www.orst.edu/dept/pi/ss01/anthocyanin.html
12/05/2001 14:25:08	Gallic acid	http://www.vinsetsante.com/za5e.html

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SPEECH TITLE: Wine & Health	SPEAKER: Louis Durand	SPEECH HYPERLINK-TIMETABLE URL: http://www.directbuyer.com/conference-0173.htm/
SELECTION TIME	HYPERLINK	HYPERLINK URL
12/05/2001 14:23:14	Resveratrol	http://www.ag.uiuc.edu/~ffh/resvera.html
12/05/2001 14:23:42	Ellagic acid	http://www.hopeforcancer.com/ellagicacid.htm
12/05/2001 14:24:52	Anthocyanin	http://www.orst.edu/dept/pi/ss01/anthocyanin.html

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Fig. 14: Hyperlinked terms selected by the auditor are identified and copied from the Speech Hyperlink-Time Table into the Selections Hyperlink-Time Table

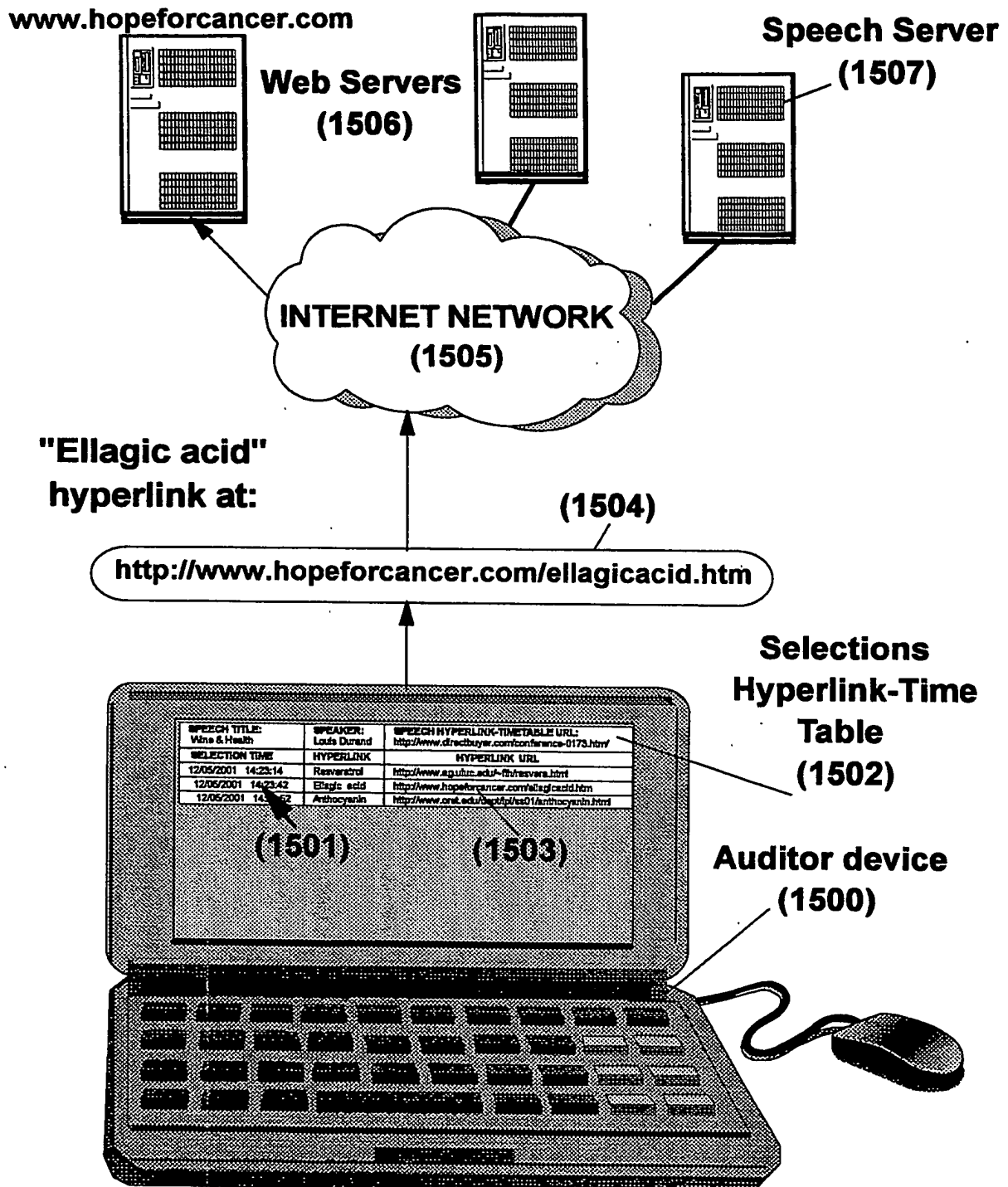


Fig. 15: Hyperlinks are triggered using the Selections Hyperlink-Time Table

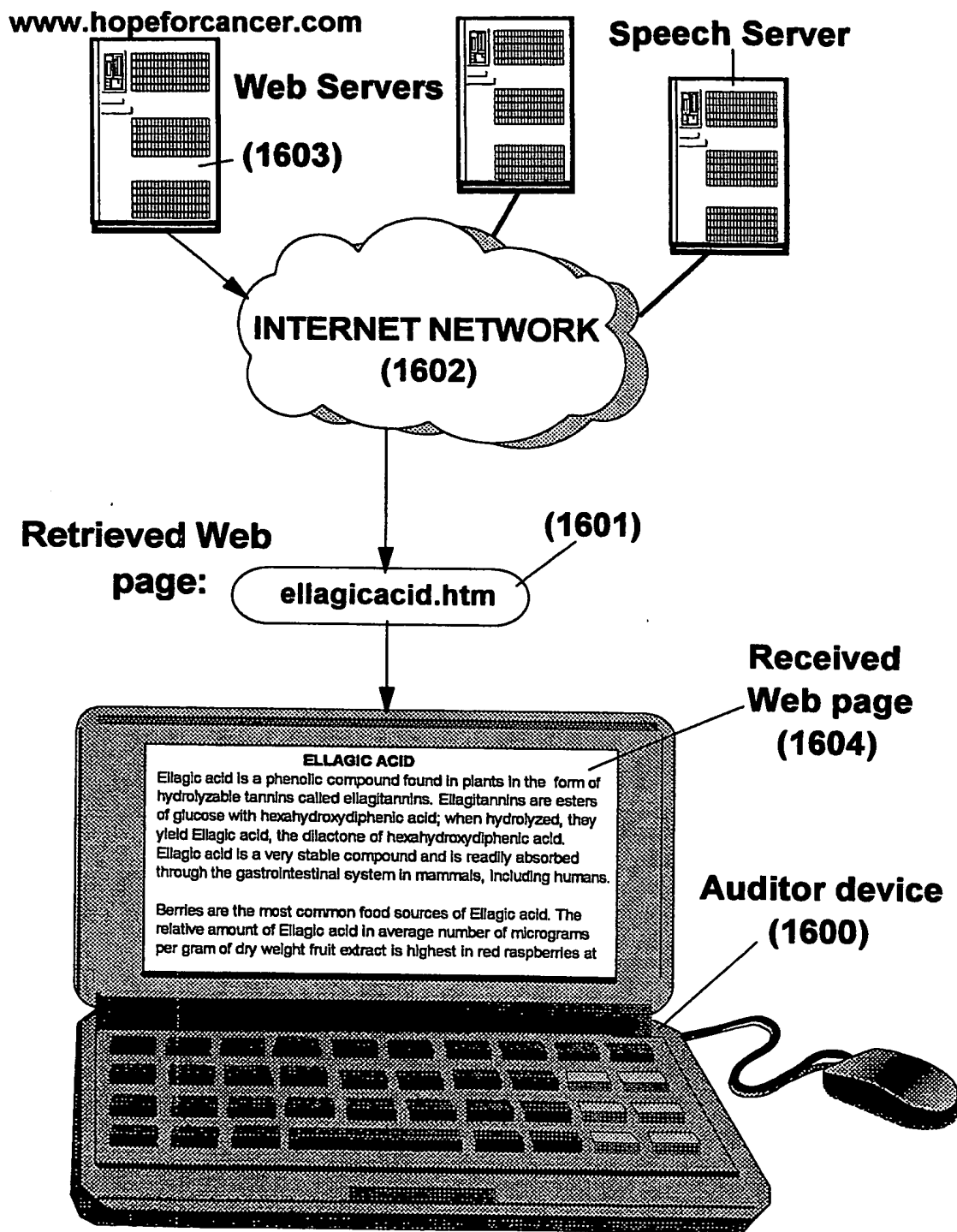


Fig. 16: The Web page related to the selected term is received from the Web server and displayed on the auditor device

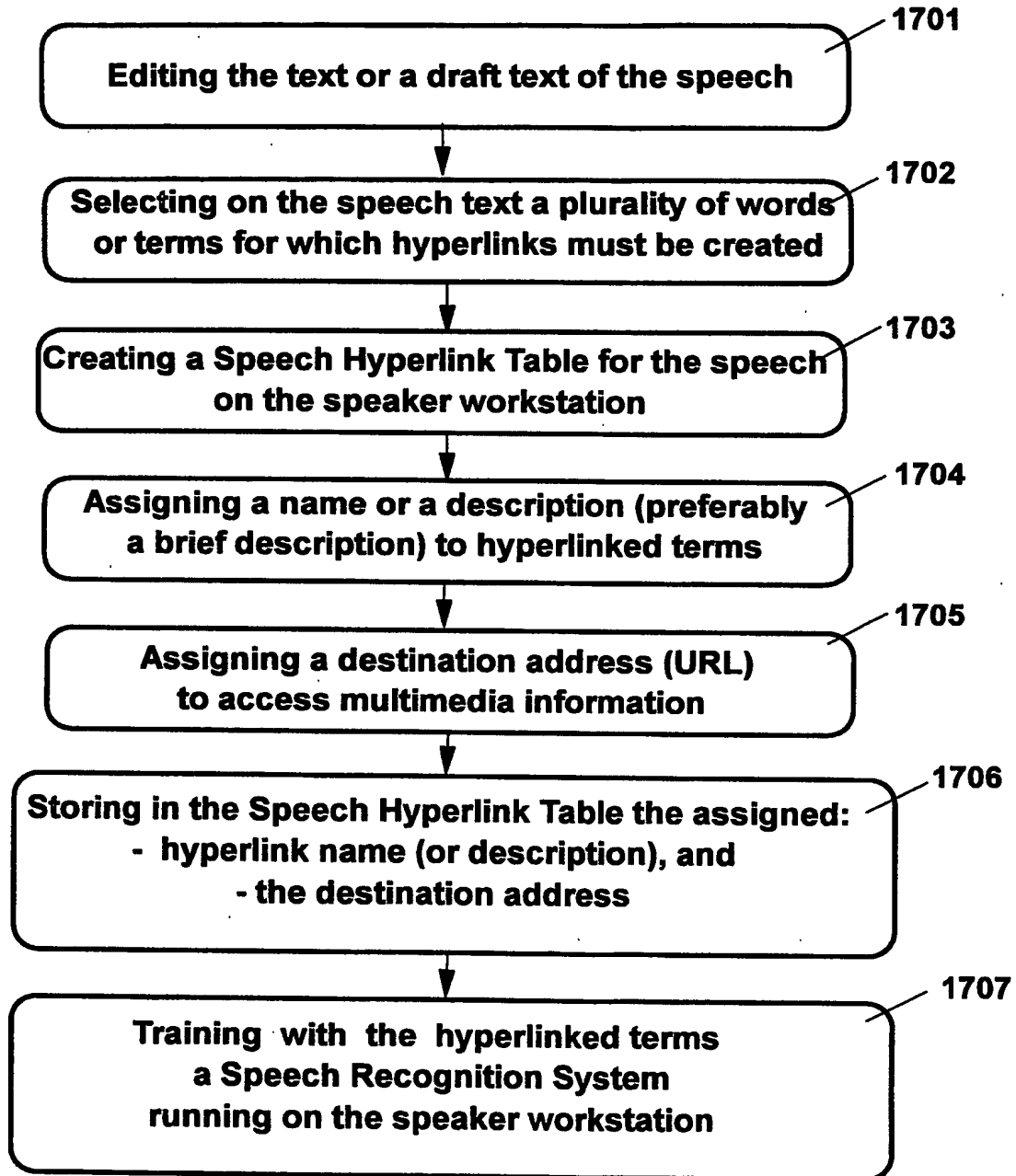


Fig. 17: Method for creating a Speech Hyperlink Table for a speech and for training a Speech Recognition System with hyperlinked terms

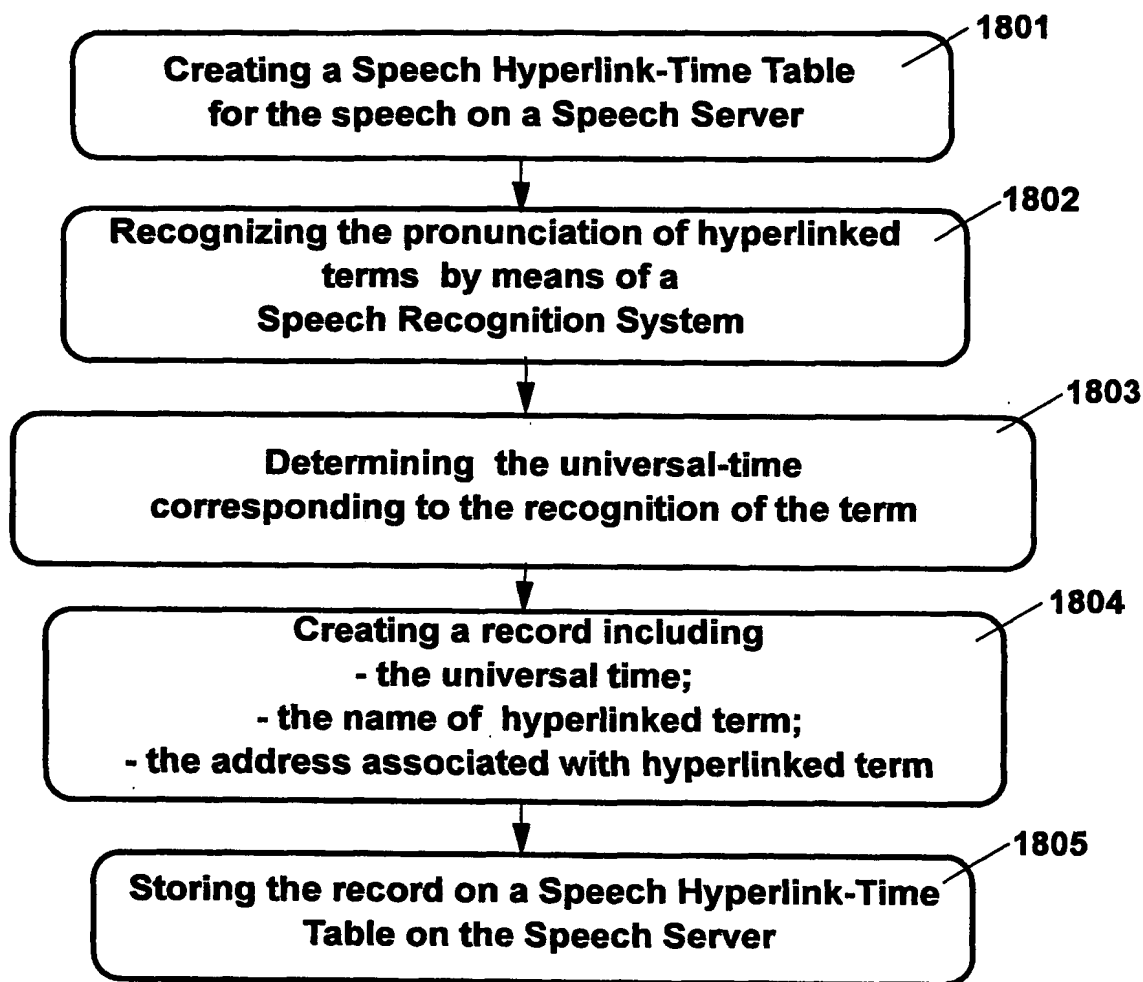


Fig. 18: Method for creating a Speech Hyperlink-Time Table on a Speech Server and for recognizing the pronunciation of hyperlinked terms during a speech

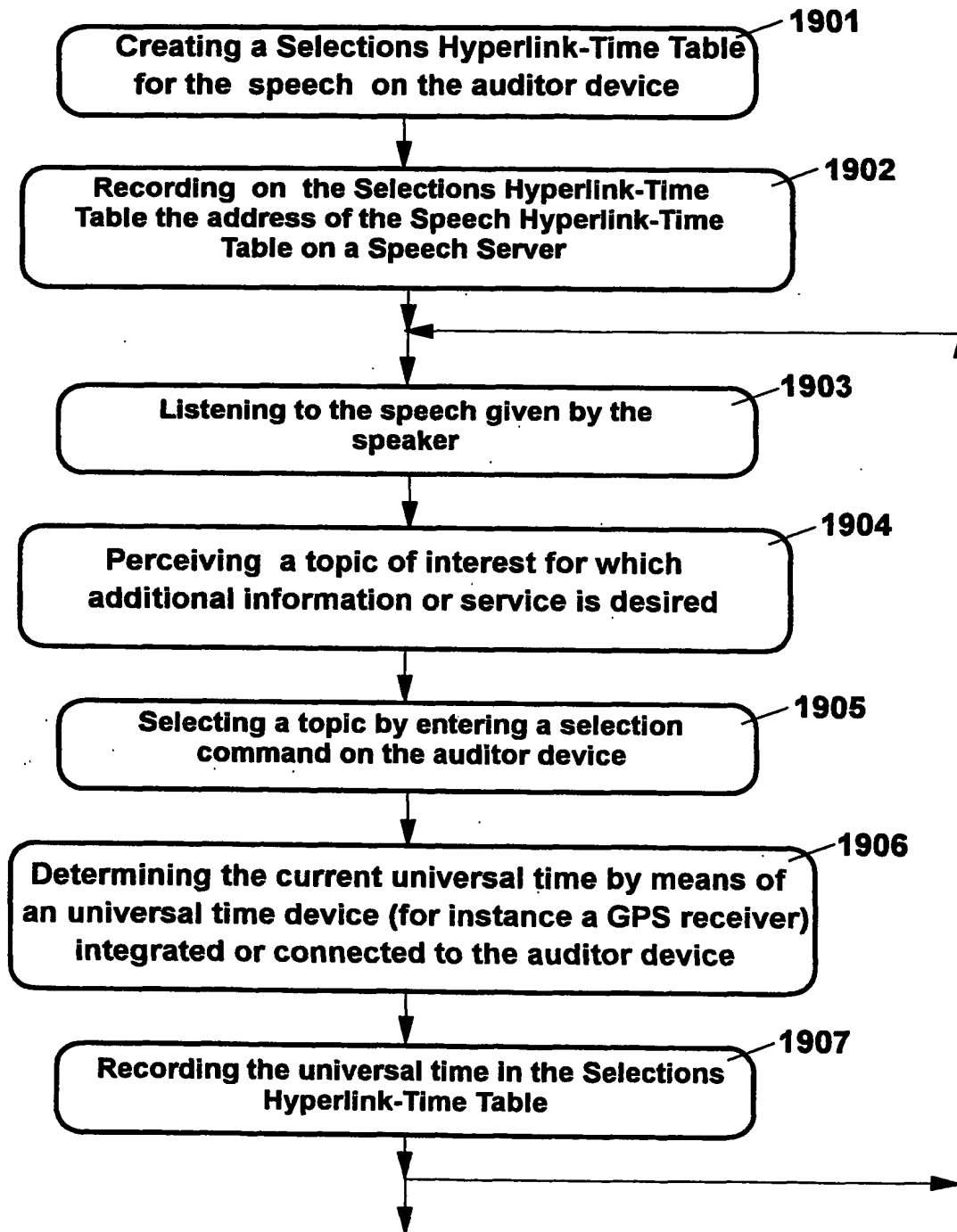


Fig. 19: Method for creating a Selections Hyperlink-Time Table and for selecting topics of interest in a speech

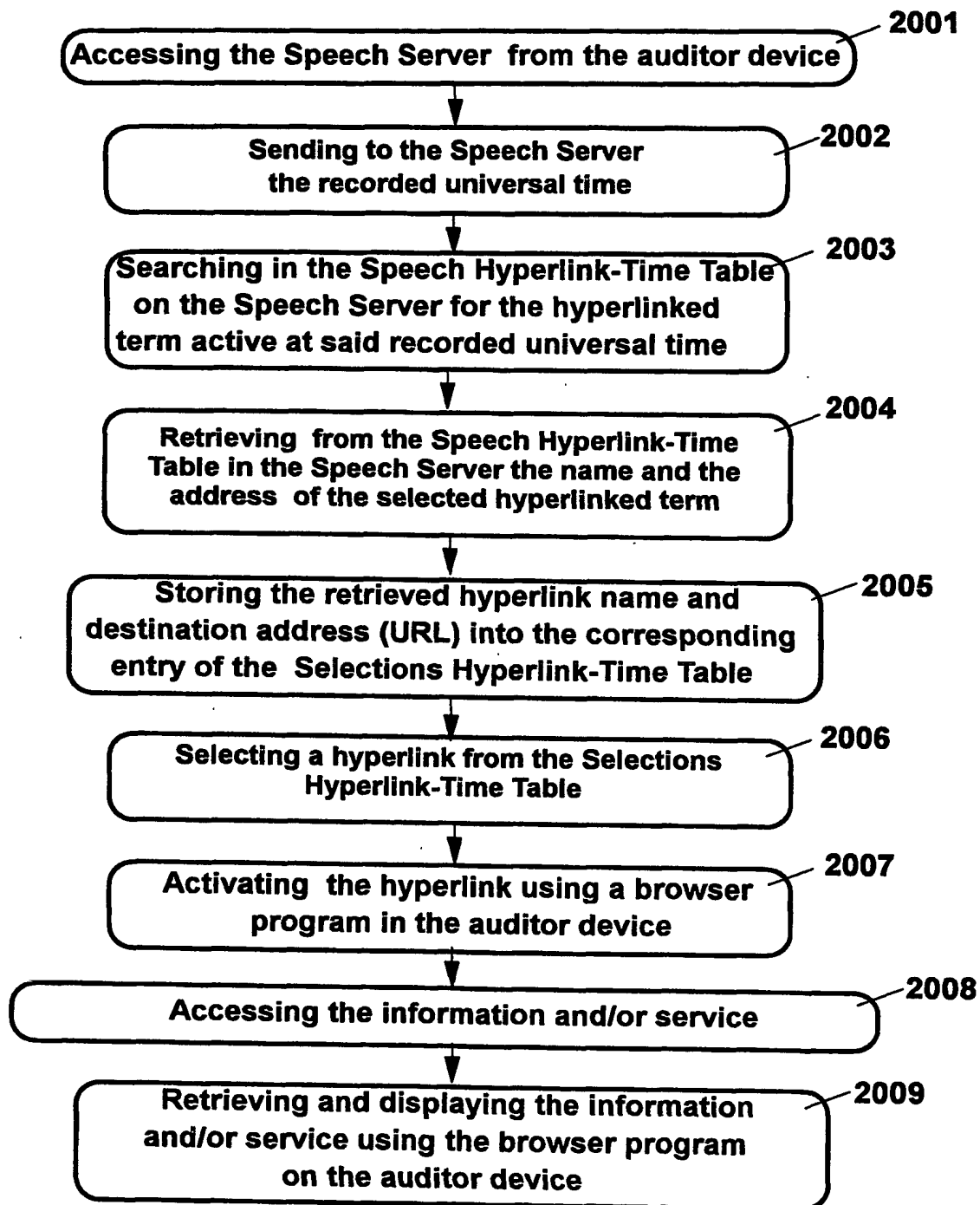


Fig. 20 : Method for accessing information related to selected terms

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